

REMARKS

Claims 1-18 were pending. By virtue of this response, claims 1-9 are amended, claims 10-18 are withdrawn, and claims 19-22 are added. Therefore, claims 1-9 and 19-22 are presently pending. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter is added.

I. Claim Objections

Claims 4 and 5 were objected to for lack of antecedent basis.

In response, claims 4 and 5 have been amended to depend from claim 3 and to remove the term “polysaccharide.” Accordingly, Applicants submit claims 4 and 5 now have proper antecedent basis.

Applicants respectfully request that this objection be withdrawn.

II. Claim Rejections Under 35 USC §103

Claims 1-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bojanic *et al.* (U.S. Patent No. 5,417,923) (hereinafter “Bojanic”) in view of Provonchee *et al.* (U.S. Patent No. 5,277,915) (hereinafter “Provonchee”).

As recognized by the Examiner, Bojanic does not disclose use of a monolithic, macroporous gel. Rather, the Examiner cites to Provonchee for disclosure of this claim limitation. Applicants respectfully disagree.

a. Provonchee does not teach a monolithic macroporous gel

The Examiner points to Provonchee as disclosing a “compressible monolithic gel.” However, in contrast to the present claims, Provonchee teaches preparing “a gel-in-matrix combination comprising a three-dimensional porous support matrix and a porous fractured hydrogel fixedly disposed therein” used in chromatographic applications. (Provonchee at claim 1 and col. 12, lines 11-13.) In other words, in Provonchee, the separation medium is composed of a two-

component system essentially different from the monolithic (one-component), macroporous gel claimed in the present application.

b. There is no rationale for incorporating a monolithic macroporous gel in Bojanic's construction

As discussed above, Applicants respectfully assert that the Examiner has not cited a reference that discloses the claimed "monolith of a compressible macroporous gel." However, Applicants hereby address the lack of a rationale for modifying Bojanic to include such a gel, even if such a reference is later identified.

In constructing the separation tray, Bojanic avoids seepage by using a different approach compared to the approach in the present disclosure. In Bojanic, the wells in the tray require underlying and overlying frits, which, respectively, support and compress the separation medium to "avoid seepage of the test liquid between the materials and the wall of the chamber." (Bojanic at col. 4, lines 48-50 and claim 2 at col. 8, lines 41-46.) The present disclosure, however, addresses the same issue by alternatively using the claimed "monolith of a compressible macroporous gel" that is tightly positioned within the chamber. (Present disclosure at paragraphs [0014] and [0015].) Because of the redundancy in the use of frits and the use of a monolithic gel to prevent seepage, a person of skill would have no rationale for incorporating a monolithic gel in the teaching of Bojanic.

In light of the differences discussed above between the present claims and Bojanic and Provonchee, separately or in combination, Applicants respectfully request that the rejections of claims 1-9 under 35 U.S.C. 103(a) be withdrawn.

c. Citations from Provonchee with respect to Claim 3

Applicants wish to address the Examiner's citations specifically with respect to claim 3. On page 5 of the Office Action, the Examiner states that Provonchee teaches that "the solvent in the system is partially frozen with the dissolved substances concentrated in the non-frozen fraction of the solvent to the formation of a cryogel." The Examiner cites to Provonchee at col. 5, lines 29-35; col. 4, lines 47-60; and col. 10, lines 12-30 (Example 5) to support this proposition.

Applicants respectfully assert that the first citation, col. 5, lines 29-35, is silent with respect to the Examiner's proposition. With respect to the second citation, col. 4, lines 47-60, the citation is only concerned with the "freezing and thawing of the hydrogel in situ" needed to generate channels within existing gel-in-matrix. In contrast (as discussed above) the present claims require generation of macroporous structures by freezing polymer solution without any additional matrix (*i.e.*, claim 3). The third citation, col. 10, lines 12-30 (Example 5), is similar to the second citation and does not discuss generation of macroporous structures without the use of an additional matrix.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing **Docket No. 514862010900**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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